

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/006750 A3

(51) International Patent Classification⁷: **A61M 37/00**,
A61N 2/00, A61B 17/52

(74) Agents: MEDLIN, Jennifer, P. et al.; Needle & Rosen-
berg, P.C., 999 Peachtree Street, Suite 1000, Atlanta, GA
30309-3915 (US).

(21) International Application Number:
PCT/US2003/021660

(22) International Filing Date: 11 July 2003 (11.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/396,054 15 July 2002 (15.07.2002) US

(71) Applicant (for all designated States except US): MUSC
FOUNDATION FOR RESEARCH DEVELOPMENT
[US/US]; 261 Calhoun Street, Suite 305, Charleston, SC
29425 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GEORGE, Mark,
S. [US/US]; 3109 Ion Avenue, Sullivan's Island, SC
29482 (US). KOZEL, Frank, A. [US/US]; 1945 Treebark
Drive, Charleston, SC 29414 (US). BOHNING, Daryl, E.
[US/US]; 119 Town Hill Road, Warren, CT 06754 (US).

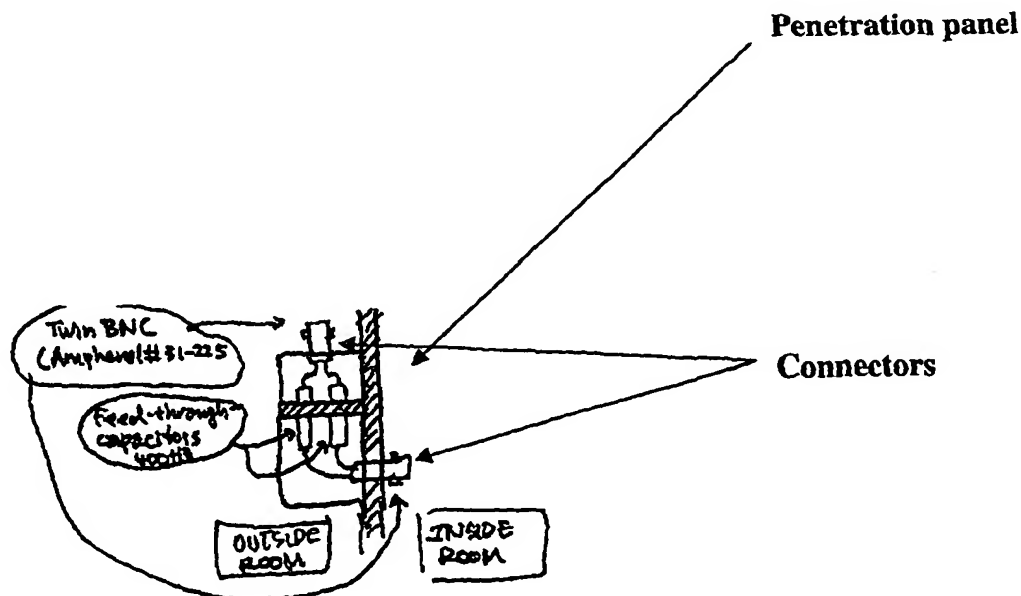
(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: FUNCTIONAL MAGNETIC RESONANCE IMAGING GUIDED TRANSCRANIAL MAGNETIC STIMULATION
DECEPTION INHIBITOR



(57) Abstract: Functional brain imaging is used to determine the regions of a brain an individual uses to lie or deceive, and then the TMS is applied to that region of the brain while the individual, is, e.g., attempting to respond to a question. If the person is attempting to deceive, TMS will temporarily inhibit operation of this part of the brain during this attempted deception, and the individual will be unable to deceive.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
23 September 2004

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/21660

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61M 37/00; A61N 2/00; A61B 17/52

US CL : 600/9, 12, 14, 15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 600/9, 12, 14, 15; 128/898

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,448,617 B1 (KATZ) 03 December 2002 (03.12.2002), column 6, lines 1-15.	1-5, 7-12, 14
X	US 6,198,958 B1 (IVES et al) 06 March 2001 (06.03.2001), column 2, lines 1-29 and column 4, lines 15-33.	1-5, 7-12, 14
A	US 5,769,778 (ABRAMS et al) 23 June 1998 (23.06.1998), column 3, lines 53-67.	1-5, 7-12, 14

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

23 January 2004 (23.01.2004)

Date of mailing of the international search report

27 JUL 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703)305-3230

Authorized officer

JEONYUH LIN

Telephone No. (703) 306-5990